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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,320

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EXAMINER

CHU, KIM KWOK

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,320	Applicant(s) NAKAMURA ET AL.	
	Examiner Kim-Kwok CHU	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 10/21/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,34-40,48,52-58,64 and 66-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,34-40,48,52-58,64 and 66-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claim Rejections - 35 USC § 102

1 The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

2. Claims 32, 34-40, 48, 52-58, 64 and 66-76 are rejected under 35 U.S.C. § 102(e) as being anticipated by Furumiya et al. (U.S. Patent 6,894,965).

Furumiya teaches an information recording method having all of the steps as recited in claims 32, 34-40, 64 and 69-72. For example, Furumiya teaches the following:

Regarding Claim 32, the optical recording method for directing a recording pulse train to an optical disc medium 9 to form marks and spaces thereon and for recording information as information about edge positions of the marks and the spaces between the marks (Fig. 3), the recording pulse train having been created by modulating laser light into plural power levels (Figs. 1 and 2), wherein the method comprising: coding to-be-recorded data into coded data consisting of a combination of the marks and the spaces (digitizing recorded data to form marks and spaces; Figs. 1 and 2); classifying each of the marks within the

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coded data on the basis of its mark length and a space length of a preceding space or a succeeding space (Figs. 4A to 4D); shifting (compensating) a position of a second pulse (either the short or long marks) edge counted from a starting edge portion of the recording pulse train for forming the marks and the spaces, depending on the result of the classifying (marks/spaces lengths), to adjust the recording pulse train (abstract; Figs. 4A to 4D); and directing the recording pulse train to the optical disc medium to form the marks and the spaces thereon (abstract).

Regarding Claim 34, in the course of adjusting the recording pulse train, shifting a position of a second pulse edge counted from an ending edge of the recording pulse train, depending on the result of the classifying (Figs. 4a-4D).

Regarding Claim 35, in the course of the step of adjusting the recording pulse train, further shifting a position of a pulse edge at an ending edge portion of the recording pulse train, depending on the result of said classifying (Figs. 4A-4D).

Regarding Claim 36, in the course of the step of adjusting the recording pulse train, further shifting a position of a pulse edge at the starting edge portion of the recording pulse train, depending on the result of the classifying (Figs. 4A-4D).

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Regarding Claim 37, the recording pulse train for forming the marks and the spaces includes three or more pulse edges (Fig. 8).

Regarding Claim 38, in the course of the step of adjusting the recording pulse train, further shifting a position of a third pulse edge counted from an ending edge of the recording pulse train, depending on the result of said classifying (Figs. 4A to 4D).

Regarding Claim 39, in the course of the step of adjusting the recording pulse train, further shifting a position of a third pulse edge counted from the starting edge of the recording pulse train, depending on the result of said classifying (Figs. 4A to 4D).

Regarding Claim 40, the recording pulse train is created by modulating the laser light with at least three power values including a first power, a second power and a third power in order of intensity (Figs. 8).

Regarding Claim 64, in the course of the step of classifying the marks, further classifying the mark lengths of the marks into at least three types of mark lengths including n , $n+1$ and $n+2$, in which n is a positive integer. (Figs. 4A-4D).

Regarding Claim 69, in the classifying each of the marks, a first classification and a second classification is determined

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(Figs. 4A-4D; marks/spaces lengths are the classification), wherein in the course of adjusting the recording pulse train, shifting a position of a first pulse edge and the position of the second pulse edge counted from the starting edge of the recording pulse train, wherein the position of the first pulse edge is shifted depending on the first classification, and wherein the position of the second pulse edge is shifted depending on the second classification (Figs. 4A to 4D).

Regarding Claim 70, each of the marks has a time length of integral multiple $k \cdot T$, in which k is a positive integer (Figs 4A to 4D), wherein the longer a time length of each of the marks increasing by one T , the more a number of pulses (T) of the recording pulse train increasing by one pulse (Figs. 4A to 4D; longer mark length has longer T , and wherein a shortest mark has a time length of one T (Figs. 4A to 4D).

Regarding Claim 71, a width of a first pulse of the recording pulse train is changed depending on a result of the classifying (Figs. 4A and 4D).

Regarding Claim 72, a width of a last pulse of the recording pulse train is changed depending on a result of the classifying (Figs. 4A and 4D).

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3. Apparatus claims 48, 52-58, 66 and 73-76 are drawn to the apparatus corresponding to the method of using same as claimed in claims 32, 34-40, 64 and 69-72. Therefore apparatus claims 48, 52-58, 66 and 73-76 correspond to method claims 32, 34-40, 64 and 69-72, and are rejected for the same reasons of anticipation as used above.

4. Apparatus claims 67 and 68 are drawn to the apparatus corresponding to the method of using same as claimed in claims 38. Therefore apparatus claims 67 and 68 correspond to method claims 38, and are rejected for the same reasons of anticipation as used above. Claim 68 however also recites the following limitation which is also taught by the prior art of Tanaka:

Regarding to Claim 68, playing back the data recorded on the recording region (Fig. 8, reproduced signal from LPF 7 is the playback signal).

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Response to Remarks

5. Applicant's Amendment and Remarks filed on October 21, 2009 have been fully considered.

With respect to the amended Claims where each of the marks within coded data are classified on the basis of its mark length and a space length (page 11 of the Remarks, last paragraph), the newly cited reference of Furumiya et al. (U.S. Patent 6,894,965) teaches that marks and spaces lengths are classified (grouped) as illustrated in Figs. 4A to 4D. Likewise, the positions (edges) of Furumiya's pulse train including the second pulse are adjusted accordingly as in Applicant's Claim 32.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/
Examiner AU2627
December 30, 2009
(571) 272-7585

/HOA T NGUYEN/
Supervisory Patent Examiner, Art Unit 2627